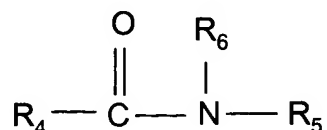


## IN THE CLAIMS:

Applicants are amending the claims. This listing is the latest version of the claims, and replaces all prior version thereof. Any claims cancelled or subject matter deleted from the claims is without prejudice

1. (Currently Amended) A tertiary amide of the formula:



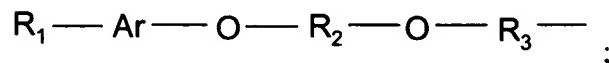
or pharmaceutically acceptable salts thereof

wherein R<sub>4</sub> is a fatty group of 11-29 carbon atoms;

~~R<sub>5</sub> and R<sub>6</sub> are independently~~ is lower alkyl, aryl, aryl lower alkyl, or fatty group containing 11-29 carbon atoms or R<sub>7</sub>;

R<sub>6</sub> is aryl, aryl lower alkyl or R<sub>7</sub>;

R<sub>7</sub> is



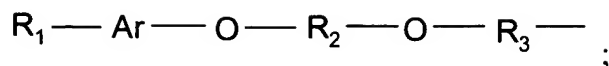
R<sub>2</sub> and R<sub>3</sub> are independently ~~lower~~ alkylene groups containing 1-6 carbon atoms,

R<sub>1</sub> is ~~a lower~~ an alkyl group containing 1-15 carbon atoms, and

Ar is aryl, said fatty group either being completely saturated or containing 1-8 carbon-carbon double bonds.

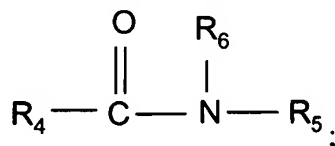
2. (Previously Presented) The tertiary amide of Claim 1 wherein R<sub>4</sub> is a fatty group containing 15-21 carbon atoms.

3. (Previously Presented) The tertiary amide of Claim 1 wherein R<sub>5</sub> is aryl or aryl lower alkyl; and R<sub>6</sub> is

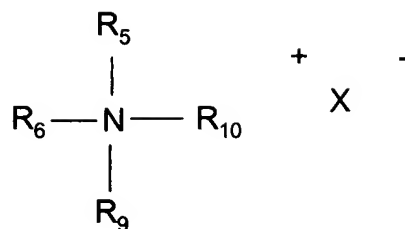


$R_2$  and  $R_3$  are independently alkylene containing 1-3 carbon atoms; and  
Ar is aryl.

4. (Previously Presented) The tertiary amide according to Claim 3 wherein Ar is phenyl.
5. (Previously Presented) The tertiary amide according to Claim 4 wherein  $R_5$  is aryl lower alkyl.
6. (Previously Presented) The tertiary amide according to Claim 5 wherein  $R_5$  is benzyl.
7. (Previously Presented) The tertiary amide according to Claim 5 wherein  $R_4$  is saturated.
8. (Previously Presented) The tertiary amide according to Claim 5 wherein  $R_4$  is unsaturated.
9. (Currently Amended) The tertiary amide according to Claim 8 wherein  $R_4$  contains [[1-8]] 1-6 carbon-carbon double bonds.
10. (Currently Amended) The tertiary amide according to Claim 1 which is ~~distearyl-stearamide,~~  
~~distearyl-linoleamide,~~ benzethonium linoleamide or benzethonium stearamide.
11. (Withdrawn) A mixture comprising a tertiary amide of a formula

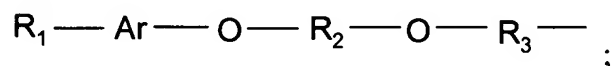


or pharmaceutically acceptable salts and a quaternary ammonia salt of the formula



wherein  $R_5$ ,  $R_6$ ,  $R_9$  and  $R_{10}$  are independently lower alkyl, aryl lower alkyl,  $R_7$  or fatty group containing 11-29 carbon atoms, wherein at least one of  $R_5$ ,  $R_6$ ,  $R_9$  and  $R_{10}$  is a fatty group and each of said fatty group is an aliphatic group which may be completely saturated or contain 1-8 carbon-carbon double bonds;

$R_7$  is

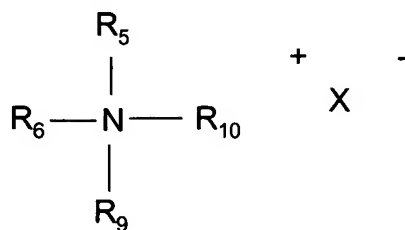


$R_1$  is alkyl containing 1-15 carbon atoms;

$R_2$  and  $R_3$  are independently lower alkylene and

$X$  is a counterion.

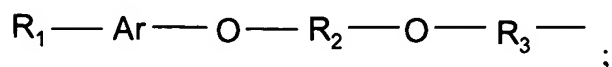
12. (Withdrawn) A method for treating insect bites on a mammal which comprises applying topically to the mammal in the locus of the insect bite an amount effective of a quaternary ammonium salt for treating insect bites of the formula



wherein  $R_5$ ,  $R_6$ ,  $R_9$  and  $R_{10}$  are independently lower alkyl or fatty group, aryl lower alkyl or  $R_7$

wherein at least one of  $R_5$ ,  $R_6$ ,  $R_9$  and  $R_{10}$  is a fatty group, each of said fatty group containing 11-29 carbon atoms and may be completely saturated or contain 1-8 carbon-carbon double bonds,

$R_7$  is



$R_1$  is alkyl containing 1-15 carbon atoms,

R<sub>2</sub> and R<sub>3</sub> are independently lower alkylene, and  
X is a counter ion.

13. (Withdrawn) The method according to Claim 12 wherein R<sub>9</sub> and R<sub>10</sub> are lower alkyl and R<sub>5</sub> and R<sub>6</sub> are fatty groups.

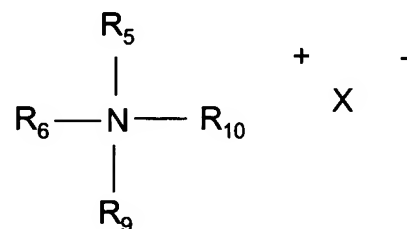
14. (Withdrawn) The method according to Claim 12 wherein R<sub>10</sub> and R<sub>9</sub> are lower alkyl and R<sub>5</sub> and R<sub>6</sub> are fatty groups containing 15-21 carbon atoms.

15. (Withdrawn) The method according to Claim 14 wherein R<sub>5</sub> and R<sub>6</sub> are independently saturated fatty group.

16. (Withdrawn) The method according to Claim 14 wherein R<sub>5</sub> and R<sub>6</sub> are independently unsaturated fatty group.

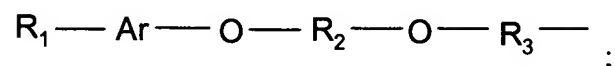
17. (Withdrawn) The method according to Claim 12 wherein an anti-oxidant is additionally present.

18. (Withdrawn) A pharmaceutical composition comprising an effective amount of the reaction product of the quaternary ammonium salt of the formula



and a fatty acid of the formula  $R_8\text{COOH}$  in an aqueous solvent under conditions effective to form an ion pair between said quaternary ammonium salt and fatty acid wherein  $R_5$ ,  $R_6$ ,  $R_9$  and  $R_{10}$  are independently lower alkyl, aryl, aryl lower alkyl, fatty group, or  $R_7$ , wherein at least one of  $R_5$ ,  $R_6$ ,  $R_9$  and  $R_{10}$  are a fatty group, said fatty group is an aliphatic group containing 11-29 carbon atoms and 0-8 carbon-carbon double bonds;

$R_7$  is



$R_1$  is alkyl containing 1-15 carbon atoms;

$R_2$  and  $R_3$  are independently lower alkylene and X is a counterion;

$R_8$  is a fatty group containing 11-29 carbon atoms;

wherein the molar ratio of the quaternary ammonium salt to fatty acid ranges from about 1:10 to about 10:1.

19. (Withdrawn) The pharmaceutical composition according to Claim 18 wherein  $R_5$  and  $R_6$  are independently a fatty group and  $R_9$  and  $R_{10}$  are lower alkyl.

20. (Withdrawn) The pharmaceutical composition according to Claim 19 wherein the fatty group contains 15-21 carbon atoms.

21. (Withdrawn) The pharmaceutical composition according to Claim 18 wherein  $R_9$  and  $R_{10}$  are independently alkenyl groups containing 15-21 carbon atoms and one, two, three, four, five or six carbon-carbon double bonds.

22. (Withdrawn) The pharmaceutical composition according to Claim 18 wherein the molar ratio of ammonium salt to fatty acid from about 1:5 to about 5:1.
23. (Withdrawn) The pharmaceutical composition according to Claim 22 wherein the ratio ranges from about 1:2 to about 2:1.
24. (Withdrawn) The pharmaceutical composition according to Claim 23 wherein the ratio is about 1:1.
25. (Withdrawn) A method for killing microorganism on the surface of objects which comprises applying the pharmaceutical composition of Claim 18 to the surface of said object.
26. (Withdrawn) A carrier composition for association with a topical pharmaceutical composition wherein said carrier composition comprises a skin penetrating effective amount of the tertiary amide of Claim 1.
27. (Withdrawn) A pharmaceutical composition comprising a pharmaceutically effective amount of a drug in association with a transdermal carrier, said transdermal carrier comprising the tertiary amide of Claim 1.
28. (Withdrawn) A method for enhancing the penetration of a drug through the skin of a mammal which comprises mixing the drug with a skin penetrating effective amount of the tertiary amide of Claim 1.

29. (Withdrawn) The method according to Claim 28 wherein the tertiary amide is present in a pharmaceutical composition comprising said drug, said tertiary amide being present in an amount ranging from about 0.3% to about 10% by weight of the pharmaceutical composition.

30. (Withdrawn) The method according to Claim 28 wherein the weight ratio of the tertiary amide to the drug is greater than 20.

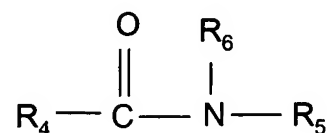
31. (Withdrawn) The method according to Claim 28 wherein R<sub>4</sub> is unsaturated.

32. (Withdrawn) The method according to Claim 28 wherein R<sub>5</sub> is lower arylalkyl and R<sub>6</sub> is R<sub>1</sub>-Ar-O-R<sub>2</sub>-O-R<sub>3</sub>.

33. (Withdrawn) The method according to Claim 32 wherein Ar is phenyl.

34. (Withdrawn) The method according to Claim 31 wherein R<sub>5</sub> is benzyl and Ar is phenyl.

35. (Currently Amended) A mixture comprising two or more different tertiary amides of the formula



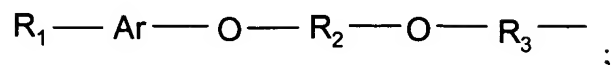
or pharmaceutically acceptable salts thereof wherein

R<sub>4</sub> is a fatty group of 11-29 carbon atoms;

~~R<sub>5</sub> and R<sub>6</sub> are independently~~ is lower alkyl, aryl, aryl lower alkyl, or fatty group containing 11-29 carbon atoms or R<sub>7</sub>;

R<sub>6</sub> is aryl, aryl lower alkyl or R<sub>7</sub>;

R<sub>7</sub> is



R<sub>2</sub> and R<sub>3</sub> are independently ~~lower~~ alkylene groups containing 1-6 carbon atoms,

R<sub>1</sub> is ~~a lower alkyl~~ an alkyl group containing 1-15 carbon atoms, and

Ar is aryl, said fatty group being completely saturated or containing 1-8 carbon double bonds.

36. (Previously Presented) The mixture of Claim 35 wherein in at least one of the tertiary amides, R<sub>5</sub> is an unsaturated fatty group ~~and R<sub>6</sub> is an aryl, aryl lower alkyl or R<sub>7</sub>~~.

37. (Withdrawn) A multi-layered pharmaceutical composition comprising a first layer comprised of the tertiary amide of Claim 1, a second layer comprised of a non-ionic surfactant, a third layer comprised of nutrients and a top layer comprised of a water soluble polymer.

38. (Withdrawn) The multi-layered pharmaceutical composition according to Claim 37, which additionally comprises a wax, layer, said wax layer located between the water soluble polymer and the surfactant layer.

39. (Withdrawn) The multi-layer pharmaceutical composition according to Claim 37 wherein the top layer is povidone.

40. (Withdrawn) A method for protecting the skin of a mammal from chafing, chapping or contact dermatitis comprising applying to the skin of said mammal, a layered composition comprising the lower layer comprised of a tertiary amide of Claim 1, a second layer comprising a non-ionic surfactant and nutrients for the skin, and the top layer comprising a water soluble polymer.

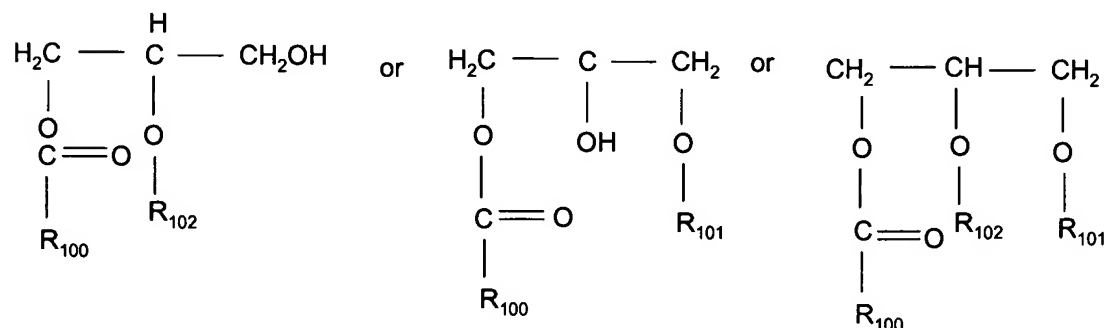


41. (Withdrawn) The method according to Claim 40 wherein the layered composition additionally comprises a wax layer, said wax layer located between the water soluble polymer and the surfactant/nutrient layer.

42. (Withdrawn) A product prepared by the process comprising:

- (a) reacting a fatty alcohol containing 12-30 carbon atoms with a fatty acid containing 12-30 carbon atoms under esterification conditions to form a first fatty acid ester;
- (b) reacting glycerol with a second fatty acid under esterification conditions to form a monoglyceride;
- (c) reacting the product of step (a) with the product of step (b) under conditions effective condition to form an ether.

43. (Withdrawn) The product according to Claim 42 having the formula



wherein R<sub>100</sub> is fatty groups having 11-29 carbon atoms and R<sub>101</sub> and R<sub>102</sub> are independently a fatty group having 12-30 carbon atoms.

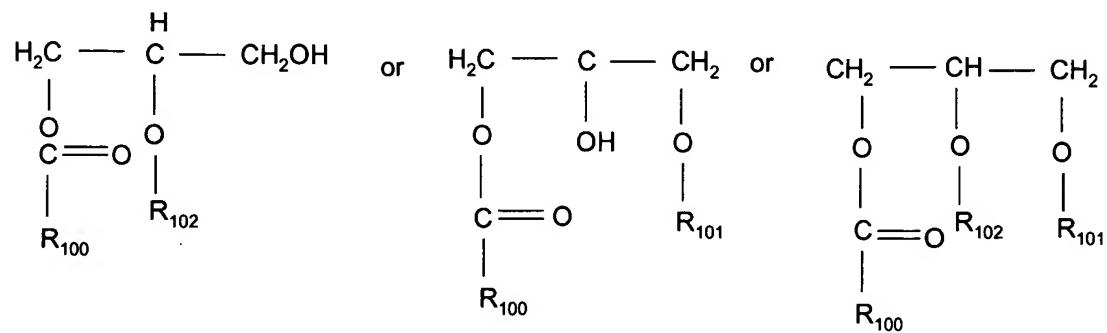
44. (Withdrawn) The product according to Claim 42 wherein the first and second fatty acids contain 16-22 carbon atoms.

45. (Withdrawn) A carrier composition comprising the product of Claim 42.

46. (Withdrawn) A carrier composition comprising the product of Claim 44.

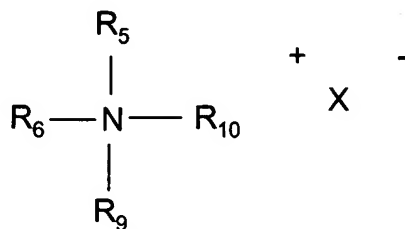
47. (Withdrawn) A method for enhancing the penetration of a drug through the skin of a mammal which comprises mixing the drug with a skin penetrating effective amount of the product of Claim 42.

48. (Withdrawn) The method according to Claim 47 wherein the product has the formula



wherein R<sub>100</sub> is fatty groups having 11-29 carbon atoms and R<sub>101</sub> and R<sub>102</sub> are independently a fatty group having 12-30 carbon atoms.

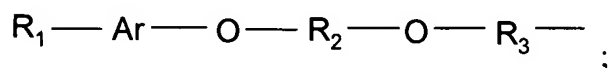
49. (Withdrawn) The product of Claim 42 admixed with quaternary ammonium salt of the formula



wherein R<sub>5</sub>, R<sub>6</sub>, R<sub>9</sub> and R<sub>10</sub> are independently lower alkyl, fatty group, aryl lower alkyl or R<sub>7</sub>

wherein at least one of R<sub>5</sub>, R<sub>6</sub>, R<sub>9</sub> and R<sub>10</sub> is a fatty group, each of said fatty group containing 11-29 carbon atoms and may be completely saturated or contain 1-8 carbon-carbon double bonds,

R<sub>7</sub> is

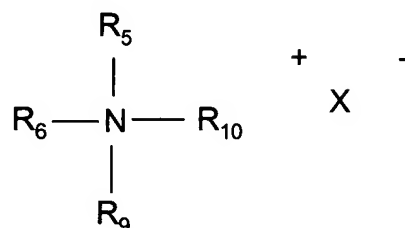


R<sub>1</sub> is alkyl containing 1-15 carbon atoms,

R<sub>2</sub> and R<sub>3</sub> are independently lower alkylene, and

X is a counter ion.

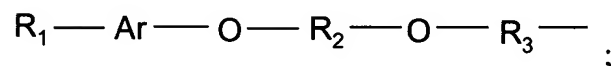
50. (Withdrawn) A carrier composition comprising the product of Claim 42 admixed with a quaternary ammonium salt of the formula



wherein  $R_5$ ,  $R_6$ ,  $R_9$  and  $R_{10}$  are independently lower alkyl, fatty group, aryl lower alkyl or  $R_7$

wherein at least one of  $R_5$ ,  $R_6$ ,  $R_9$  and  $R_{10}$  is a fatty group, each of said fatty group containing 11-29 carbon atoms and may be completely saturated or contain 1-8 carbon-carbon double bonds,

$R_7$  is



$R_1$  is alkyl containing 1-15 carbon atoms,

$R_2$  and  $R_3$  are independently lower alkylene, and

$X$  is a counter ion.

51. (Withdrawn) A pharmaceutical composition for topical application comprising a pharmaceutically effective amount of a drug and the carrier composition of Claim 50.

52. (Withdrawn) The pharmaceutical composition according to Claim 50 wherein the drug and the carrier are present in a molar ratio of drug to carrier of greater than about 20.

53. (Withdrawn) The pharmaceutical composition according to Claim 51 wherein the drug and the carrier are present in a molar ratio of between about 5 and about 20.

54. (Withdrawn) A method for treating skin sores, chapping, chafing, skin bruises or wounds on a mammal which comprises applying to the locus of the skin injury a pharmaceutical

composition comprising a pharmaceutically effective amount of a drug and a skin penetrating effective amount of a carrier composition according to claim 26 or 50.

55. (Withdrawn) The pharmaceutical composition according to Claim 51 wherein the drug and the carrier are present in a molar ratio of drug to carrier ranging from between about 5 to about 20.

56. (Withdrawn) A pharmaceutical composition for treating sun-damaged skin comprising a pharmaceutical effective amount of a drug for treating said sun-damaged skin in association with a transdermal carrier capable of penetrating the skin of a mammal, said transdermal carrier comprising of a skin penetrating effective amount of a tertiary amide according to Claim 1 and a water extract of *lilium longiflorum*.

57. (Withdrawn) A transdermal carrier comprising a skin penetrating effective amount of tertiary amide according to Claim 1 and an ion pair prepared by the reaction of a quaternary ammonium salt and a fatty acid and under conditions effective to form a quaternary ammonium salt; fatty acid ion pair.

58. (Withdrawn) The carrier according to Claim 57 wherein the molar ratio of tertiary amide to ion pair ranges from about 1:1 to about 8:1.

59. (Withdrawn) The carrier according to Claim 57 wherein the molar ratio is about 4:1.

60. (Withdrawn) The carrier composition according to Claim 59 wherein the molar ratio is about 1:2.

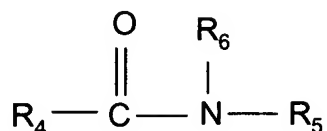
61. (Withdrawn) A method for treating chapped or cracked skin on a mammal comprising a quaternary ammonium product, and a carrier composition according to Claim 26 or 50.

62. (Cancelled)

63. (Withdrawn) A gel comprising the tertiary amide of any one of Claims 1-10.
64. (Withdrawn) An antiseptic composition comprising a transdermal effective amount of the tertiary amide of Claim 1 in association with an anti-microbial effective amount of povidone iodine.
65. (Withdrawn) The composition of Claim 64 wherein the pH is 5 or less.
66. (Withdrawn) The composition according to Claim 64 additionally comprising a cationic surfactant.
67. (Withdrawn) A moisturizing composition comprising a transdermal effective amount of the tertiary amide of Claim 1 and a moisturizing effective amount of vegetable oil.
68. (Previously Presented) A composition comprising a transdermal effective amount of the tertiary amide of Claim 1.
69. (Withdrawn) The composition according to Claim 68 additionally comprising a product prepared by the process comprising:
- (a) reacting a fatty alcohol containing 12-30 carbon atoms under esterification condition to form a first fatty acid ester;
  - (b) reacting glycerol with a second fatty acid under esterification conditions to form a monoglyceride;
  - (c) reacting the product of step (a) with the product of step (b) at a pH of less than about 4.5 under conditions effective to form an ether.

70. (Withdrawn) The composition according to Claim 68 additionally comprising nutrients and antioxidants.

71. (New) A tertiary amide of the formula:

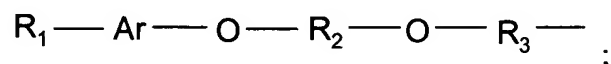


or pharmaceutically acceptable salts thereof wherein

R<sub>4</sub> is a fatty group of 11-29 carbon atoms;

R<sub>5</sub> and R<sub>6</sub> are independently aryl, aryl lower alkyl, or fatty group containing 11-29 carbon atoms containing one to eight carbon-carbon double bonds or R<sub>7</sub>;

R<sub>7</sub> is



R<sub>2</sub> and R<sub>3</sub> are independently lower alkyl alkylene groups containing 1-6 carbon atoms;

R<sub>1</sub> is an alkyl group containing 1-15 carbon atoms; and

Ar is aryl.

72. (New) The tertiary amide of Claim 71 when R<sub>4</sub> is a fatty group containing 15-21 carbon atoms.

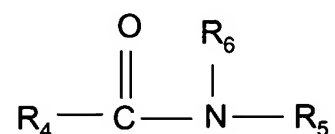
73. (New) A composition comprising a transdermal effective amount of the tertiary amide of Claim 71.

74. (New) A tertiary amide hydrate formed from the process comprising heating a mixture of water, a quaternary surfactant, a fatty acid and an alkanolamine at a temperature greater than the melting point of said acid and less than 100<sup>0</sup>C for sufficient time and under conditions effective to form a tertiary amide, cooling said tertiary amide to ambient temperature for sufficient time

and under effective conditions for the pH of the water to stabilize and for said tertiary amide hydrate to form.

75. (New) The product formed from the process of Claim 74 wherein the alkanolamine is triethanolamine, trimethanolamine, tris (hydroxyethyl) aminomethane, or tris (hydroxyethyl methyl) aminoethane.

76. (New) An amide hydrate of a tertiary amide, where the tertiary amide has the formula:

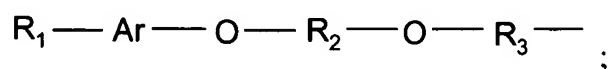


or pharmaceutically acceptable salts thereof wherein

R<sub>4</sub> is a fatty group of 11-29 carbon atoms;

R<sub>5</sub> and R<sub>6</sub> are independently lower alkyl, aryl, aryl lower alkyl, or fatty group containing 11-29 carbon atoms or R<sub>7</sub>;

R<sub>7</sub> is



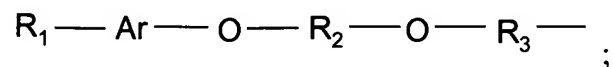
R<sub>2</sub> and R<sub>3</sub> are independently alkylene groups containing 1-6 carbon atoms;

R<sub>1</sub> is an alkyl group containing 1-15 carbon atoms; and

Ar is aryl.

77. (New) The amide hydrate of Claim 76 wherein R<sub>4</sub> is a fatty group containing 15-21 carbon atoms.

78. (New) The amide hydrate of Claim 76 wherein R<sub>5</sub> is aryl or aryl lower alkyl; and R<sub>6</sub> is



R<sub>2</sub> and R<sub>3</sub> are independently alkylene containing 1-3 carbon atoms; and

Ar is aryl.

79. (New) The amide hydrate according to Claim 78 wherein Ar is phenyl.
80. (New) The amide hydrate according to Claim 79 wherein R<sub>5</sub> is aryl lower alkyl.
81. (New) The amide hydrate according to Claim 80 wherein R<sub>5</sub> is benzyl.
82. (New) The amide hydrate according to Claim 80 wherein R<sub>4</sub> is saturated.
83. (New) The amide hydrate according to Claim 80 wherein R<sub>4</sub> is unsaturated.
84. (New) The amide hydrate according to Claim 83 wherein R<sub>4</sub> contains 1-8 carbon-carbon double bonds.
85. (New) The amide hydrate according to Claim 76 which is the amide hydrate of a tertiary amide selected from the group consisting of distearyl stearamide, distearyl linoleamide, benzethonium linoleamide and benzethonium stearamide.
86. (New) A composition comprising a transdermal effective amount of the tertiary amide hydrate of any one claims 76-85.
87. (New) Distearyl linoleamide or pharmaceutically acceptable salt thereof.